# UNITED STATES PATENT AND TRADEMARK OFFICE

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| 09/676,924 | 10/02/2000 | Shy Cohen | 204863 | 3782 |

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| EXAMINER |
|---|
| NGUYEN, HAI V |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2142 | |

DATE MAILED: 07/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>03</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on <u>05 May 2004</u>.

2a)☐ This action is **FINAL**.    2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All   b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

## DETAILED ACTION

1.     This Office Action is in response to the communication received on 04 May 2004.

2.     Claims 1-23 are presented for examination.

3.     Examiner has withdrawn the indication of the allowable subject matter of claims

20-23.

### *Claim Rejections - 35 USC § 102*

4.     The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102(e)

that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the

Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a

U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore,

the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-

AIPA 35 U.S.C. 102(e)).

5.     Claims 1-6 are rejected under 35 U.S.C. 102(e) as being anticipated by **Bakshi**

US patent no. **6,457,054 B1.**

6.     As to claim 1, Bakshi, System For Reducing User-Visibility Latency In Network

Transactions, teaches substantially the invention as claimed, including a method of bi-

directionally communicating between an application residing on a first processor *(Fig. 5,*

*item 2)* on a private computer network and an application residing on a second

processor *(Fig. 5, item 4)* not on the private computer network, the communication path

including a public computer network and a proxy server *(Fig. 6, item 36)* coupled to the

private computer network and separating the private computer network from the public

computer network, the method comprising:

establishing a first communication channel between the first processor and the

second processor through the proxy server to allow the transfer of first messages from

the first processor to the second processor, and the delivery of first message delivery

acknowledgments from the second processor to the first processor *(Fig. 1; col. 2, line*

*51 – col. 2, line 30)*; and

establishing a second communication channel between the first processor and

the second processor through the proxy server to allow the transfer of second

messages from the second processor to the first processor, and the delivery of second

message delivery acknowledgments from the first processor to the second processor

*(Fig. 1; col. 2, line 51 – col. 2, line 30)*.

7.      As to claim 2, Bakshi teaches, wherein the establishing of a first communication

channel comprises transmitting a first HTTP-based "request" to the second processor

via the proxy server, the first "request" including at least one of the first messages

therein *(request packet, Abstract, col. 1, line 51 - col. 2, line 30)*.

8.      As to claim 3, Bakshi teaches, wherein the establishing of a second

communication channel comprises transmitting a second HTTP-based "request" to the

second processor via the proxy server to be parked at the second processor, the

second "request" establishing a persistent HTTP connection between the first processor

and the second processor through the proxy server *(Fig. 1; col. 2, line 51 – col. 2, line*

*30; Fig. 4, col. 4, line 40 col. 5, line 41)*.

9.      As to claim 4, Bakshi teaches, further comprising receiving an HTTP-based

"reply" from the second processor on the second communication channel, the HTTP

based "reply" including at least one of the second messages therein *(Fig. 1; col. 2, line*

*51 – col. 2, line 30; Fig. 4, col. 4, line 40 col. 5, line 41).*

10.     As to claim 5, Bakshi teaches, further comprising transmitting a third HTTP

based "request" to the second processor via the proxy server in response to receiving

the HTTP-based "reply", the third HTTP-based "request" containing an acknowledgment

for the HTTP-based "reply" and further establishing a persistent HTTP connection

between the first processor and the second processor through the proxy server *(Fig. 1;*

*col. 2, line 51 – col. 2, line 30; Fig. 2, col. 3, lines 31-67; Fig. 4, col. 4, line 40 col. 5, line*

*41).*

11.     As to claim 6, Bakshi teaches, wherein the first processor only receives an HTTP

based "reply" from the second processor on the second communication channel when

the second processor has at least one of the second messages to send to the first

processor *(Fig. 1; col. 2, line 51 – col. 2, line 30; Fig. 2, col. 3, lines 31-67; Fig. 4, col. 4,*

*line 40 col. 5, line 41).*

## *Claim Rejections - 35 USC § 103*

12.     The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

13.     Claims 7-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over

**Bakshi** US patent no. **6,457,054 B1** in view of **Boyle** et al. US patent no. **6,119,167**.

14.

15.     As to claim 7, Bakshi does not explicitly disclose, wherein the second HTTP-

based "request" includes therein a request that the second processor transmit a reply

after the expiration of a time period even if there are no second messages so that the

first processor can assess a status of the connection thereto. Thus, the artisan would

have been motivated to look to the related networking art for potential methods and

apparatus for implementing the request including a request that the second processor

transmit a reply after the expiration of a time period even if there are no second

messages so that the first processor can assess a status of the connection thereto.

In the same field of endeavor, Boyle, related Pushing And Pulling Data In

Networks, in an analogous art networked connection establishment, discloses that in

In some embodiments, messenger 154 assigns a time-to-live parameter MTTL
(messenger time-to-live) to each notification received by the messenger. The
MTTL may be different from the time-to-live assigned by servers 130 and used
for cache 122. If a notification has been in a messenger queue longer than
MTTL and the messenger has not been able to send the notification to the
respective browser 134, the messenger deletes the notification from the
messenger queue. Thus, if multiple header lists have been pushed by service
132 while the user device 120 was off, the header lists not delivered by the
messenger for time MTTL will be deleted. The probability that outdated header
lists will be pushed to device 120 will therefore be reduced.

In some embodiments, a server 130 may push a command to messenger 154 to
delete one or more notifications from the messenger queues if the notifications
have not been delivered to the browsers.

In some embodiments, for each data push notification, the messenger 154
deletes any undelivered notifications that have the same URL and are destined
for the same browser 134.

In some embodiments, a stock application on a server 130 sends stock prices to devices 120. A user may request the stock application (via the pull path 138) to push the price of a given stock when the price gets above or below a certain value. Alternatively, the user may request the application (via the pull path) to push the price at regular intervals of time, for example, every hour. In some embodiments, the stock application pushes the stock price via the SMS whenever the stock price changes. SMS stands for Short Message Service. This service is inexpensive or free in some networks.

In some embodiments, browser 134, messenger 154, browser proxy 150, and mail service 132 are products of Unwired Planet, Inc. of Redwood Shores, Calif. Devices 120 are model MA210 cellular phones available from Mitsubishi or model Duette cellular phones available from Samsung. Browser 134 is stored in the ROM of devices 120. The browser size is 60-130 KBytes.

The cellular phone also has 20-26 Kbytes of RAM of which about 14-20 Kbytes are used for cache 122. The RAM is non-volatile due to a built-in battery power source.

In some embodiments, the sequence numbers (DECKSEQ) are generated not by servers 130 but by link stations 124. A separate sequence number is kept for each browser 134. Station 124 increments the sequence number for each deck received for browser 134 by proxy 150 or messenger 154, and attaches the sequence number to the deck. Browser 134 discards any data, whether pushed or pulled, that have a lower sequence number than any data previously received by the browser even if the previously received data have a different URL... *(Boyle, col. 10, line 34 – col. 11, line 33; col. 11, line 34 – col. 12, line 15).*

Accordingly, it would have been obvious to one of ordinary skill in the networked data control art at the time the invention was made to have incorporated Bakshi's teachings with the teachings of Boyle, for the purpose of optimizing for the cost and latency parameters *(Boyle, col. 12, lines 1-10).*

16.    As to claim 8, Bakshi-Boyle discloses, further comprising setting the time period to be less than two days *(Boyle, col. 10, line 34 – col. 11, line 33; col. 11, line 34 – col. 12, line 15; col. 13, line 50 - col. 14, line 3).*

17.     As to claim 9, Bakshi-Boyle discloses, further comprising setting the time period

to be approximately five minutes *(Boyle, col. 10, line 34 – col. 11, line 33; col. 11, line*

*34 – col. 12, line 15; col. 13, line 50 - col. 14, line 3).*

18.     As to claim 10, Bakshi-Boyle discloses, further comprising dynamically adjusting

the time period based upon a connection time out closure controlled by the proxy server

*(Boyle, col. 10, line 34 – col. 11, line 33; col. 11, line 34 – col. 12, line 15).*

19.     As to claim 11, Bakshi-Boyle discloses, wherein the dynamically adjusting of the

time period comprises: receiving a connection time out closure message from the proxy

server *(Boyle, col. 6, line 25 – col. 7, line 36);* determining a first time between

transmitting the second HTTP-based "request" and receiving a connection time out

closure message from the proxy server *(Boyle, col. 6, line 25 – col. 7, line 36);* and

calculating a new time period to be less than the first time and less than the time period

*(Boyle, col. 2, line 55 –col. 3, line 40; col. 10, line 34 – col. 11, line 33; col. 11, line 34 –*

*col. 12, line 15).*

20.     Claim 12 corresponds to the computer readable medium claim of claim 1;

therefore it rejected under the same rationale as claim 1.

21.     As to claim 13, Bakshi-Boyle discloses a method of enabling transmission of

unsolicited messages from a server to a client, the client residing on a private computer

network having a proxy server between the private computer network and a public

computer network, the server transmitting the unsolicited messages over the public

computer network, the method comprising transmitting an HTTP-based request to the

server via the proxy server to open a persistent connection therewith, the HTTP-based

request requesting a reply from the server only when the server has messages to send to the client *(The user may request mail service 132 not to push any data. Alternatively, the user may request mail service 132 to push only invalidate notifications. Alternatively, the user may request mail service 132 to push data not more often than a given time interval. Alternatively, the user may request the mail service to push new mail notifications only when a predetermined minimum number of new messages has been received in the user mailbox, and to push invalidate service notification according to some other policy. This is not an exhaustive list of how the user may control the push operation to optimize for the cost and latency parameters. The user issues such requests via the pull path 138 (col. 11, line 65 – col. 12, line 10)).*

22.    Claim 14 has similar limitations of claim 7; therefore, it is rejected under the same rationale as in claim 7.

23.    Claim 15 has similar limitations of claim 10; therefore, it is rejected under the same rationale as in claim 10.

24.    Claim 16 has similar limitations of claim 11; therefore, it is rejected under the same rationale as in claim 11.

25.    Claim 17 has similar limitations of claims 11, 3, 7; therefore, it is rejected under the same rationale as in claims 11, 3, 7.

26.    Claim 18 has similar limitations of claims 11, 5; therefore, it is rejected under the same rationale as in claims 11, 5.

27.    Claim 19 corresponds to the computer readable medium claim of claim 13; therefore it rejected under the same rationale as claim 13.

28.    As to claim 20, Bakshi-Boyle discloses a method of transmitting unsolicited

messages via a public computer network to a client residing on a private computer

network, the private computer network including a proxy server, the method comprising:

receiving an HTTP-based request *(Boyle, stock price quote request)* originating from the

client through the proxy server *(Bakshi, Fig. 4, server receiving data request; Boyle, col.*

*2, line 55 –col. 3, line 40; col. 10, line 34 – col. 11, line 33; col. 11, line 34 – col. 12, line*

*15; col. 22, line 60 – col. 25, line 49; col. 25, line 50- col. 29, line 25)*; and

parking the HTTP-based request without responding thereto unless a message *(Boyle,*

*alert or notification message)* is generated that needs to be transmitted to the client; and

when the message is generated

generating an HTTP-based reply *(Boyle, stock price message)* to the HTTP-

based request parked for the client, the HTTP-based reply containing the message

therein *(Boyle, col. 2, line 55 –col. 3, line 40; col. 10, line 34 – col. 11, line 33; col. 11,*

*line 34 – col. 12, line 15; col. 22, line 60 – col. 25, line 49; col. 25, line 50- col. 29, line*

*25)*; and

transmitting the HTTP-based reply *(Boyle, col. 2, line 55 –col. 3, line 40; col. 10,*

*line 34 – col. 11, line 33; col. 11, line 34 – col. 12, line 15; col. 22, line 60 – col. 25, line*

*49; col. 25, line 50- col. 29, line 25)*.

29.    As to claim 21, Bakshi-Boyle discloses, receiving a second HTTP-based request

containing a message acknowledgement from the client through the proxy server

*(Boyle, Fig. 32, 5th and 6th arrows)*; parking the second HTTP-based request *(Boyle, Fig.*

*32, arrow HOLD ON)*.

30.     As to claim 22, Bakshi-Boyle discloses wherein the HTTP-based request

includes connection time out period information, and the step of parking the HTTP-

based request further comprises:

when the connection time out period expires, generating an HTTP-based reply to the

HTTP-based request parked for the client, and transmitting the HTTP-based reply

*(Boyle, col. 2, line 55 –col. 3, line 40; col. 10, line 34 – col. 11, line 33; col. 11, line 34 –*

*col. 12, line 15; col. 22, line 60 – col. 25, line 49; col. 25, line 50- col. 29, line 25).*

31.     Claim 23 corresponds to the computer readable medium claim of claim 20;

therefore it rejected under the same rationale as claim 20.

32.    Further references of interest are cited on Form PTO-892, which is an

attachment to this action.

33.    Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Hai V. Nguyen whose telephone number is 703-306-

0276. The examiner can normally be reached on 6:00-3:30 Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Jack Harvey can be reached on 703-305-9705. The fax phone number for

the organization where this application or proceeding is assigned is 703-872-9306.

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Business Center (EBC) at 866-217-9197 (toll-free).

SUPERVISOR PATENT EXAMINER

Hai V. Nguyen
Examiner
Art Unit 2142